

US Army Corps
of Engineers
Kansas City District

**KANSAS CITY DISTRICT
CORPS OF ENGINEERS
and
NORTH KANSAS CITY LEVEE LOWER SECTION**

**Public Law 84-99 of the Flood Control Act of 1944
Levee Rehabilitation – NEPA Review, Environmental
Assessment & Finding of No Significant Impact**

**NORTH KANSAS CITY LEVEE LOWER
SECTION FEDERAL LEVEE
REHABILITATION PROJECT**

**Clay County,
Missouri**

May 2008



DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
700 FEDERAL BUILDING
KANSAS CITY, MISSOURI 64106-2896

Finding of No Significant Impact

North Kansas City Levee Unit Lower Section Levee Rehabilitation Project May 2008

Project Summary

The U.S. Army Corps of Engineers (USACE) Kansas City District, in cooperation with the project sponsor, North Kansas City Levee District proposes to rehabilitate the North Kansas City Levee Lower Section, under the authority of Public Law 84-99 of the Flood Control Act of 1944. The project area is located in Clay County, Missouri along the left descending bank of the Missouri River, North Kansas City, Missouri between river miles 363.5 to 366.1. During the May 2007 flood event, severe damages to the levee unit occurred. The damages consist of several sinkholes located landside and riverside of the primary levee. The recommended plan would consist of excavations and backfilling of all sinkholes.

Alternatives

Landside Sinkholes sites located Landside at Station 260+00 and 270+00.

Alternative 1 (Recommended plan) - Open excavation to uncover two existing structures and repair to 6 feet depth. The proposed recommended plan would consist of 350 cubic yards of excavation of the sinkholes to the top of the buried water well chamber box at Station 260+00 and down to the voids for the structures at Station 270+00. Access to the water well would require partial removal and replacement of an adjacent fence, approximately 600 lf. The 4-inch concrete slab would be removed from the top of a water well chamber box. The lid is at least 6ft by 14 feet. Once the box is opened, additional concrete may be removed. The top of the chamber box would be demolished and disposed of off site. Any adjoining pipes causing voids would be removed from the chamber box. Any interior structures within the water well chamber box would be demolished and removed to allow for placement of 120 cubic yards of concrete in all voids. The water well would be drilled and grouted. Excavated soils stockpiled on site would be used for compacted backfill to the original grade. The amount of backfill would be approximately 400 cubic yards. In addition a 600 linear feet of a fiber optic utility located at the bottom of the sinkhole would be relocated. Unusable materials would be properly disposed. After the work is completed, both areas would be seeded and mulched.

Alternative 2- The repair plan would be the same as those described under the recommended plan, except repairs would be to a depth of 12 feet. Total depth below the ground surface of the

sinkhole is 12 feet. Sinkholes repairs at both stations would require excavations of 612 cubic yards of material.

Landside Sinkholes sites located landside at stations 214+00, 223+00, 224+00 and 231+00.

Recommended plan – Open excavation to uncover four areas to provide repairs to an existing 8-inch sanitary sewer force main. Approximate 333 cubic yards of material would be excavated from the sinkholes to remove weakened soils to depth of 6 feet and investigate the condition of the buried pipe. The soils would be backfilled with 314 cubic yards of material and 83 cubic yards of concrete. The unusable material would be properly disposed and the areas would be seeded and mulched upon completion.

Riverside Sinkholes at Stations 320+00, 328+00 and 334+00.

Recommended Plan –The riverside sinkholes would be excavated to a depth of 6 feet at each location and would excavate approximately 900 cubic yards of material. The areas would be backfilled with excavated materials. Bedding such as ½ inch size rock and 401 cubic yards of riprap would be removed and replaced along toe of the levee adjacent to the river. Trees within three 50 ft x 10ft areas would be removed for the excavations of the sinkholes.

No-Action Alternative- Under the no-action alternative, the Corps of Engineers would not repair any of the sinkholes discussed above.

Summary of Environmental Impacts

Most of this levee repair would be constructed on the existing levee and underseepage berms and would result in only minimal, temporary construction related impacts. A few trees (.03 acre) would be removed with the repair of the riverside sinkholes, however, adjacent cottonwoods and willows would quickly revegetate these areas. These minor impacts are outweighed by the overall long-term social and economic benefits of this project.

Mitigation Measures

The recommended plan would result in no impacts to mitigable resources as defined in USACE planning regulations or under Section 404 of the Clean Water Act. Therefore, no mitigation measures are warranted or proposed.

Public Availability

As part of the NEPA review for the proposed project, the USACE circulated a Notice of Availability (Notice) of the Environmental Assessment (EA) and the Draft Finding of No Significant Impact (FONSI), dated May 28, 2008, with a thirty-day comment period ending on June 28, 2008 to the public and resource agencies. The Notice was e-mailed to individuals/agencies/businesses listed on the USACE Regulatory e-mail mailing list. The Notice informed these individuals that the EA and FONSI were available on the USACE webpage or that they could request the EA and FONSI in writing, in order to provide comment.

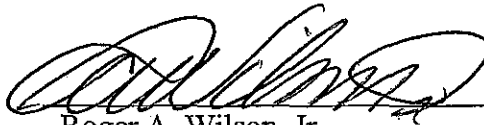
One comment was received from the U.S. Fish and Wildlife Service (USFWS) by letter dated June 16, 2008. The USFWS stated that the proposed activity is not likely to adversely affect federally listed species or designated critical habitat.

Conclusion

After evaluating the anticipated environmental, economic, and social effects of the proposed activity, it is my determination that construction of the proposed North Kansas City Levee District Rehabilitation Project to restore sinkholes that occurred after the May 2007 flood event, does not constitute a major Federal action that would significantly affect the quality of the human environment; therefore, preparation of an Environmental Impact Statement is not required.

Date:

10 July 08



Roger A. Wilson, Jr.
Colonel, Corps of Engineers
District Commander



DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
700 FEDERAL BUILDING
KANSAS CITY, MISSOURI 64106-2896

EXECUTIVE SUMMARY

The U.S. Army Corps of Engineers (USACE) Kansas City District, in cooperation with the project sponsor, North Kansas City Levee District proposes to rehabilitate the North Kansas City Levee Lower Section, under the authority of Public Law 84-99 of the Flood Control Act of 1944. The project area is located in Clay County, Missouri along the left descending bank of the Missouri River, North Kansas City, Missouri between river miles 363.5 to 366.1. During the May 2007 flood event, severe damages to the levee unit occurred. The damages consist of several sinkholes located landside and riverside of the primary levee. The recommended plan would consist of excavations and backfilling of all sinkholes.

Most of this levee repair would be constructed on the existing levee and underseepage berms and would result in only minimal, temporary construction related impacts. A few trees (.03 acre) would be removed with the repair of the riverside sinkholes, however, adjacent cottonwoods and willows would quickly revegetate these areas. These minor impacts are outweighed by the overall long-term social and economic benefits of this project.

The recommended plan would result in no impacts to mitigable resources as defined in USACE Planning regulations or under Section 404 of the Clean Water Act. Under the proposed action, no practicable alternatives exist that involve the clearing of mast producing trees and/or impacting ½ acre or more of trees averaging greater than 9 inches diameter at breast height (dbh). Therefore, no mitigation measures are warranted or proposed.

As part of the NEPA review for the proposed project, the USACE circulated a Notice of Availability (Notice) of the Environmental Assessment (EA) and Finding of No Significant Impact (FONSI), dated May 28, 2008, with a thirty-day comment period ending on June 28, 2008 to the public and resource agencies. The Notice was e-mailed to individuals/agencies/businesses listed on the USACE-Regulatory e-mail mailing list. The Notice informed these individuals that the EA and FONSI were available on the USACE webpage or that they could request the EA and FONSI in writing, in order to provide comment. One comment was received from the U.S. Fish and Wildlife Service by letter dated June 16, 2008. The USFWS stated that the proposed activity is not likely to adversely affect federally listed species or designated critical habitat.

**NEPA REVIEW
ENVIRONMENTAL ASSESSMENT
&
FINDING OF NO SIGNIFICANT IMPACT**

**NORTH KANSAS CITY LEVEE UNIT LOWER SECTION
LEVEE REHABILITATION PROJECT**

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**NEPA REVIEW
ENVIRONMENTAL ASSESSMENT
&
FINDING OF NO SIGNIFICANT IMPACT**

**NORTH KANSAS CITY LEVEE UNIT LOWER SECTION
LEVEE REHABILITATION PROJECT
CLAY COUNTY, MISSOURI
MAY 2008**

Section 1: INTRODUCTION

This Environmental Assessment provides information that was developed during the National Environmental Policy Act (NEPA) public interest review of the proposed Public Law 84-99 North Kansas City Levee Rehabilitation Project.

Section 2: AUTHORITY

The Kansas City District – U.S. Army Corps of Engineers (USACE), in cooperation with the project sponsor, North Kansas City Levee District, proposes to construct the North Kansas City Levee Rehabilitation Project under the authority of Public Law 84-99 of the Flood Control Act of 1944.

Section 3: PROJECT LOCATION

The project area is located in Clay County, Missouri along the left descending bank of the Missouri River, North Kansas City, Missouri, between river miles 363.5 to 366.1

Section 4: GENERAL DESCRIPTION

The North Kansas City Unit is operated and managed as two separate and distinct sections: the "upper section" and the "lower section". The upper section is located upstream of the Kansas River confluence, starting from river mile 369.6 to the downstream floodwall at river mile 366.2 and is comprised of 2.5 miles of levee. The upper section is owned and maintained by Kansas City, Missouri. Federal construction began in 1946. Several Federal improvements have been made since the initial construction. The most recent Federal work was completed post-1993 flood under the PL 84-99 program in the upper section.

The Lower North Kansas City Unit is maintained by the North Kansas City Levee District and is located in both North Kansas City and in Kansas City, Missouri. The lower unit begins at river mile 369.6 to 366.2 and consists of 6.2 miles of levee, 310 ft of floodwalls, riprap slope protection; Rock Creek channel relocation, underseepage control measures, pumping plants, drainage structures, and stoplog gaps.

The lower unit levee system protects most of North Kansas City, Missouri. This levee also protects much of the main industrial area of downtown Kansas City. North Kansas City is very densely developed, with large-scale industrial uses near the river, a thriving retail district, and has residential neighborhoods located farther inland. Among protected properties are the Wheeler Downtown Airport, a Kansas City Power and Light plant, a treatment plant, and many large industrial warehouses. The levee protects nearly 1,700 buildings, including nearly 1,100 homes and 600 businesses and public facilities. The estimated total property value in the protected area is more than \$3.25 billion.

Section 5: PROJECT DAMAGES

During the May 2007 flood event, severe damages to the levee unit occurred. The damages consist of a series of potentially serious sinkholes. The levee in its current state is estimated to provide a 15-year residual level of protection.

Section 6: PURPOSE & NEED FOR ACTION

The project purpose and need is to rehabilitate the damaged levees and restore the associated social and economic benefits. During the May 2007 flood event, severe damages to the levee unit occurred. The damages consist of a series of potentially serious sinkholes. The levee in its current state is estimated to provide a 15-year residual level of protection. Repair of the levee would restore an estimated level of protection in excess of 500 years.

Section 7: ALTERNATIVES

Landside Sinkholes sites located Landside at Station 260+00 and 270+00.

Recommended plan - Open excavation to uncover two existing structures and repair to 6 feet depth. The proposed recommended plan would consist of 350 cubic yards of excavation of the sinkholes to the top of the buried water well chamber box at Station 260+00 and down to the voids for the structures at Station 270+00. Access to the water well would require partial removal and replacement of an adjacent fence, approximately 600 lf. The 4-inch concrete slab would be removed from the top of a water well chamber box. The lid is at least 6ft by 14 feet. Once the box is opened, additional concrete may be removed. The top of the chamber box would be demolished and disposed of off site. Any adjoining pipes causing voids would be removed from the chamber box. Any interior structures within the water well chamber box would be demolished and removed to allow for placement of 120 cubic yards of concrete in all voids. The water well would be drilled and grouted. Excavated soils stockpiled on site would be used for compacted backfill to the original grade. The amount of backfill would be approximately 400 cubic yards. In addition a 600 linear feet of a fiber optic utility located at the bottom of the sinkhole would be relocated. Unusable materials would be properly disposed. After the work is completed, both areas would be seeded and mulched.

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No-Action Alternative- Under the no-action alternative, the Corps of Engineers would not repair any of the sinkholes discussed above.

Section 8: NATIONAL ENVIRONMENTAL POLICY ACT REVIEW

As part of the NEPA review for the proposed project, the USACE circulated a Notice of Availability (Notice) of the Environmental Assessment (EA) and the Draft Finding of No Significant Impact (FONSI), dated May 28, 2008, with a thirty-day comment period ending on June 28, 2008 to the public and resource agencies. The Notice was e-mailed to individuals/agencies/businesses listed on the USACE Regulatory e-mail mailing list. The Notice informed these individuals that the EA and FONSI were available on the USACE webpage or that they could request the EA and FONSI in writing, in order to provide comment.

One comment was received from the U.S. Fish and Wildlife Service (USFWS) by letter dated June 16, 2008. The USFWS stated that the proposed activity is not likely to adversely affect federally listed species or designated critical habitat.

Section 9: AFFECTED ENVIRONMENT:

The project area is located in North Kansas City, Clay County, Missouri along the left descending bank of the Missouri River, river miles 363.5 to 366.1. Landward of the levee, the area is mainly comprised of urban development. A narrow band of riparian trees and vegetation align the riverward extent of the levee. This riparian vegetation is located between the levee and the Missouri River. Common trees found within this area include willows, cottonwoods and sycamores. In addition, various wildlife species occupy this riparian zone such as small fur-bearing species, white tail deer, and various birds, including neo-tropical migrants.

sycamores. In addition, various wildlife species occupy this riparian zone such as small fur-bearing species, white tail deer, and various birds, including neo-tropical migrants.

Primary resources of concern identified during the evaluation included: water quality, fish and wildlife, threatened and endangered species, riparian woodlands, wetlands, archeological and historical resources, floodplain, and economics. Projects impacts to other resources were determined to be no effect. There are no agricultural resources within the project area.

Section 10: ENVIRONMENTAL CONSEQUENCES:

Water quality

With the implementation of the recommended plan, adverse impacts to water quality are not anticipated to occur. The excavated soils that are used for emergency backfill would be compacted and stored landside of the levee to prevent runoff into the river. Excavations for the investigations of the sinkholes would be compacted with backfill and seeded with fescue immediately following investigations. In addition, the riparian area between the levee and the river would filter any incidental runoff from the riverward construction area and reduce the likelihood of fuel, petroleum products, or other deleterious material from entering into the waterway. Work would be done above the groundwater line, and therefore would not affect groundwater sources.

Under the Alternative 2, adverse impacts to water quality are not anticipated to occur and conditions would be the same as those described in the recommended plan.

Under the No-Action Alternative, the damaged levees would not be restored to their pre-damaged levels of protection. In addition, in the absence of Federal action addressing levee improvements, a high water event could result in the release of a variety of industrial chemicals and substantially impact the natural and human environment within the project area. Levee failure could result in adverse impacts to water quality from increased levels of nutrient loading and wastes, including runoff of pollutants from industrial sources, petroleum products, and non-point sources of human and animal wastes.

Fish and Wildlife

The recommended plan would result in only minor, temporary construction related impacts to wildlife resources mainly from noise and visual disturbance. Most of this levee repair would be constructed on the existing levee and underseepage berms and would result in only minimal, temporary construction related impacts. A few trees (.03 acre) would be removed with the repair of the riverside sinkholes, however, adjacent cottonwoods and willows would quickly revegetate these areas. No impacts are anticipated to occur to fisheries resources.

Under the Alternative 2, impacts to fish and wildlife would be the same as those described in the recommended plan.

Under the No-Action Alternative, there would be minimal impacts on fisheries and wildlife resources. These would primarily be related to flooding within the previously protected area.

Threatened and Endangered Species

The species listed as threatened or endangered within Clay County, Missouri include the Indiana bat (*Myotis sodalis*) (E) and the pallid sturgeon (*Scaphirhynchus albus*). The Bald eagle is protected under the Bald and Golden Eagle Act and Migratory Bird Treaty Act.

The Corps has determined that no adverse effects on any federally-listed threatened or endangered species or their habitat would occur with the proposed levee repair work. The Pallid sturgeon (*Scaphirhynchus albus*) is found primarily in the Missouri River and Mississippi River. No work is proposed within the Missouri River. The Indiana bat (*Myotis sodalis*) roosts in exfoliating trees greater than 9 inches diameter breast height during the spring and summer, and hibernate in caves during the fall and winter. Levee work would not impact any Indiana bat habitat. No impacts to any state listed endangered species or their habitat were identified.

Under the No-Action Alternative, there would be no impacts to endangered or threatened species since the project area does not contain habitat to support these listed species.

Riparian Woodlands

Most of this levee repair would be constructed on the existing levee and underseepage berms and would result in only minimal, temporary construction related impacts. A few trees (.03 acre) would be removed with the repair of the riverside sinkholes, however, adjacent cottonwoods and willows would quickly revegetate these areas.

Under Alternative 2, impacts to riparian woodlands would be the same as those described in the recommended plan

The "No Action" Alternative would likely have no impact on riparian woodlands due to the project area being highly urbanized.

Wetlands

The recommended plan and Alternative 2 would have no adverse impacts on wetlands. No wetlands were identified in the areas of the proposed action.

The "No Action" Alternative could result in minor benefits to existing wetlands located on the flood plain within the protected area as these areas would be subject to a high level risk of future flooding.

Archeological and Historical Resources

The proposed project would be undertaken entirely on the previously constructed levee structure and, therefore, the recommended plan and Alternative 2 have minimal potential to impact any

sites listed on or eligible for inclusion on the National Register of Historic Places (NRHP). A background check of the NRHP and site location maps identified no previously recorded sites within or near the proposed project area. Therefore, no SHPO coordination is required for the project. If project plans change additional ground disturbance would be undertaken beyond the levee structure, the project would be coordinated with SHPO and affiliated Native American tribes (Tribes). If in the unlikely event that archeological material is discovered during project construction, work in the area of discovery would cease until the discovery is investigated by a qualified archeologist, and the find is coordinated with SHPO and the Tribes.

The "No Action" Alternative would result in no effects to archaeological or historical resources.

Floodplain

The recommended plan would restore a 500-yr level of flood protection to the existing levee system. The proposed action would not directly or indirectly support more development in the floodplain or encourage additional occupancy and/or modification of the base floodplain. Furthermore, the Corps has determined that the recommended plan complies with the intent of Executive Order 11988.

The "No Action" Alternative would continue to expose all public and private infrastructure protected by the levee prior to the flood damage to a high level risk of future flooding.

Economics

With the implementation of the recommended plan, the levees would be restored to a 500-year level of flood protection. Public and private infrastructure protected by the levee prior to the flood damage would continue to be protected against a 500-year flood event. Economic conditions are unlikely to change from those of pre-damage levee conditions with the repair of this levee system.

The Alternative 2 would provide similar impacts on economics as those described under the recommended plan, but this alternative would be slightly less cost effective than the recommended plan.

The "No Action" Alternative has a zero benefit to cost ratio and would continue to expose all public and private infrastructure protected by the levee prior to the flood damage to a high level risk of future flooding. The area would continue to suffer the effects of a levee with a dramatically smaller level of protection and would be exposed to annual damages in millions of dollars.

Section 11: CUMULATIVE IMPACTS

The combined incremental effects of human activity are referred to as cumulative impacts (40 CFR 1508.7). While these incremental effects may be insignificant on their own, accumulated over time and from various sources, they can result in serious degradation to the environment. The cumulative impact analysis must consider past, present, and reasonably foreseeable actions.

in the study area. The analysis must also include consideration of actions outside of the Corps, to include other State and Federal agencies. As required by NEPA, the Corps has prepared the following assessment of cumulative impacts related to the alternatives being considered in this EA.

Historically, the Missouri River and its floodplain has been altered by bank stabilization, dams on the river and its tributaries, roads/bridges, agricultural and urban levees, channelization, farming, water withdrawal for human and agricultural use, urbanization and other human uses. These activities have substantially altered the terrestrial and aquatic ecosystem within the Missouri River watershed.

The repairs of damaged levees are expected to continue in the future as unpredictable flood events of the Missouri River occur. The USACE, which administers Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act, has issued and will continue to evaluate permits authorizing the placement of fill material in the Waters of the United States and/or work on, in, over or under a navigable water of the United States including the Missouri River and its tributaries.

Of the reasonably foreseeable projects and associated impacts that would be expected to occur, further urbanization of the floodplain will probably have the greatest impact on these resources in the future.

The proposed action would involve restoring the North Kansas City levee that was damaged during the May 2007 flood to its pre-protection levels. Most of this levee repair would be constructed on the existing levee and underseepage berms and would result in only minimal, temporary construction related impacts. A few trees (.03 acre) would be removed with the repair of the riverside sinkholes, however, adjacent cottonwoods and willows would quickly revegetate these areas. These minor impacts would be greatly offset by restoring the flood risk management capability and its associated social and economic benefits of the existing levee system. Thus, no significant cumulative impacts associated with the proposed rehabilitation of the existing levee system have been identified.

Section 12: MITIGATION MEASURES

The recommended plan would result in no impacts to mitigable resources as defined in USACE Planning regulations or under Section 404 of the Clean Water Act. Therefore, no mitigation measures are warranted or proposed.

Section 13: COMPLIANCE WITH ENVIRONMENTAL QUALITY STATUTES

Compliance with Designated Environmental Quality Statutes that have not been specifically addressed earlier in this report are covered in Table 1. Additional information is listed for the most pertinent statutes following the table.

Table 1
Compliance of Preferred Alternative with Environmental Protection
Statutes and Other Environmental Requirements

Federal Policies	Compliance
Archeological Resources Protection Act, 16 U.S.C. 470, et seq.	Full Compliance
Clean Air Act, as amended, 42 U.S. C. 7401-7671g, et seq.	Full Compliance
Clean Water Act (Federal Water Pollution Control Act), 33 U.S.C. 1251, et seq.	Full Compliance
Coastal Zone Management Act, 16 U.S.C. 1451, et seq.	Not Applicable
Endangered Species Act, 16 U.S.C. 1531, et seq.	Full Compliance
Estuary Protection Act, 16 U.S.C. 1221, et seq.	Not Applicable
Federal Water Project Recreation Act, 16 U.S.C. 4601-12, et seq.	Full Compliance
Fish and Wildlife Coordination Act, 16 U.S.C. 661, et seq.	Full Compliance
Land and Water Conservation Fund Act, 16 U.S.C. 4601-4, et seq.	Not Applicable
Marine Protection Research and Sanctuary Act, 33 U.S.C. 1401, et seq.	Not Applicable
National Environmental Policy Act, 42 U.S.C. 4321, et seq.	Full Compliance
National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470a, et seq.	Full Compliance
Rivers and Harbors Act, 33 U.S.C. 403, et seq.	Full Compliance
Watershed Protection and Flood Prevention Act, 16 U.S.C. 1001, et seq.	Full Compliance
Wild and Scenic River Act, 16 U.S.C. 1271, et seq.	Not Applicable
Farmland Protection Policy Act, 7 U.S.C. 4201, et. seq.	Full Compliance
Protection & Enhancement of the Cultural Environment (Executive Order 11593)	Full Compliance
Floodplain Management (Executive Order 11988)	Full Compliance
Protection of Wetlands (Executive Order 11990)	Full Compliance
Environmental Justice (Executive Order 12898)	Full Compliance

NOTES:

- a. Full compliance. Having met all requirements of the statute for the current stage of planning (either preauthorization or postauthorization).
- b. Partial compliance. Not having met some of the requirements that normally are met in the current stage of planning.
- c. Noncompliance. Violation of a requirement of the statute.
- d. Not applicable. No requirements for the statute required; compliance for the current stage of planning.

Clean Water Act, Section 404 and 401

The recommended plan would not involve the placement of fill material in Waters of the United States and therefore, a Clean Water Act, Section 401 Water Quality Certification (Appendix II) and Section 404(b)(1) evaluation are not required.

Clean Water Act, Section 402

A NPDES permit has been received from Missouri Department of Natural Resources and is located in Appendix II.

Endangered Species Act, Section 7

The Corps of Engineers has made a determination that no impacts to any federally listed threatened or endangered species or their habitat would occur with the project action. Coordination of ESA would be completed upon review of this EA and concurrence of this determination with the USFWS.

National Historic Preservation Act

No sites listed on or eligible for listing on the National Register of Historic Places are located within or near the proposed project area. Therefore, no coordination with the Missouri State Historic Preservation Office (SHPO) is required for the project.

Section 14: CONCLUSION

Most of this levee repair would be constructed on the existing levee and underseepage berms and would result in only minimal, temporary construction related impacts. A few trees (.03 acre) would be removed with the repair of the riverside sinkholes, however, adjacent cottonwoods and willows would quickly revegetate these areas. These minor impacts are outweighed by the overall long-term social and economic benefits of this project.

Section 15: PREPARERS

This EA and the associated draft FONSI were prepared by Ms. Lekesha Reynolds (Environmental Resource Specialist), with relevant sections prepared by and Mr. Timothy Meade (Archeological and Historical Resources). The address of the preparers is: U.S. Army Corps of Engineers, Kansas City, District; PM-PR, Room 843, 601 E. 12th St, Kansas City, MO 64106.

APPENDIX I – PROJECT DRAWINGS

**North Kansas City Levee Unit Lower Section
Levee Rehabilitation Project
May 2008**

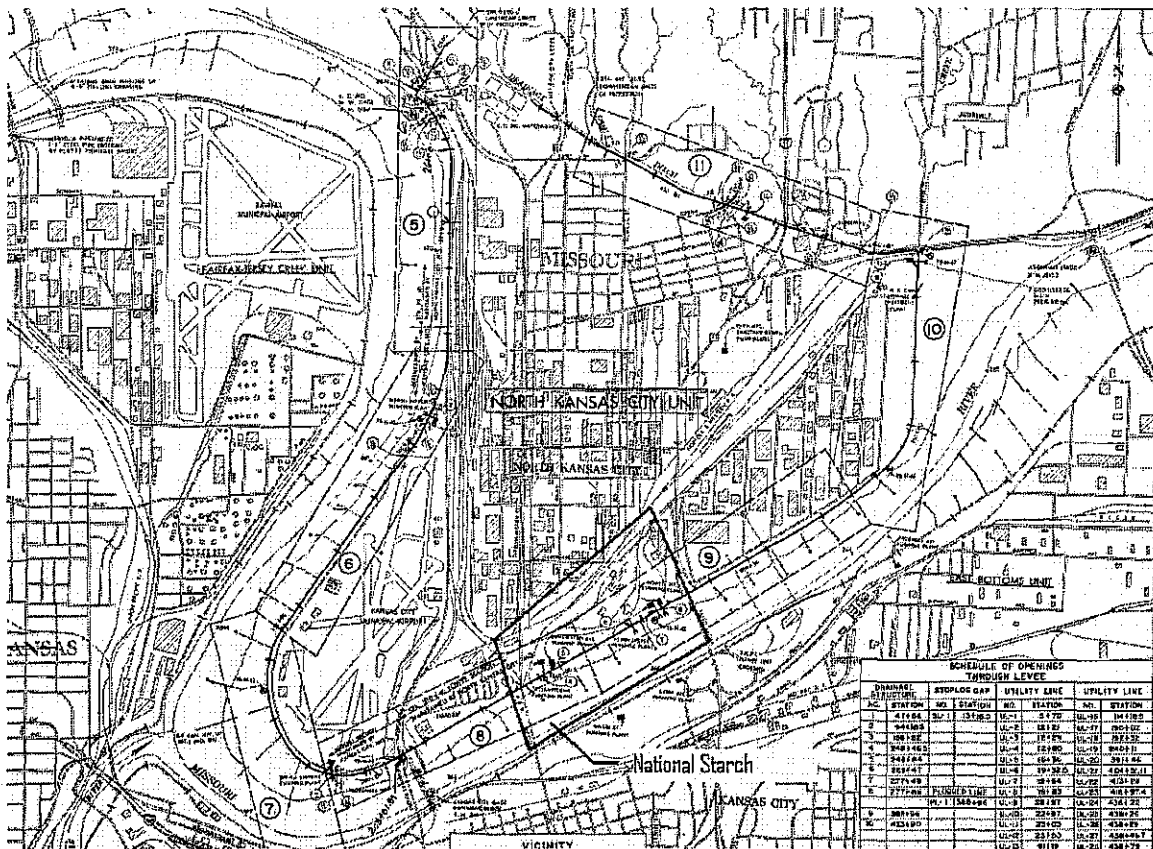


Figure 1 : Plan of Area
North Kansas City , Missouri

National Starch Reach - Identified 4 separate possible sinkholes since 1993 Flooding

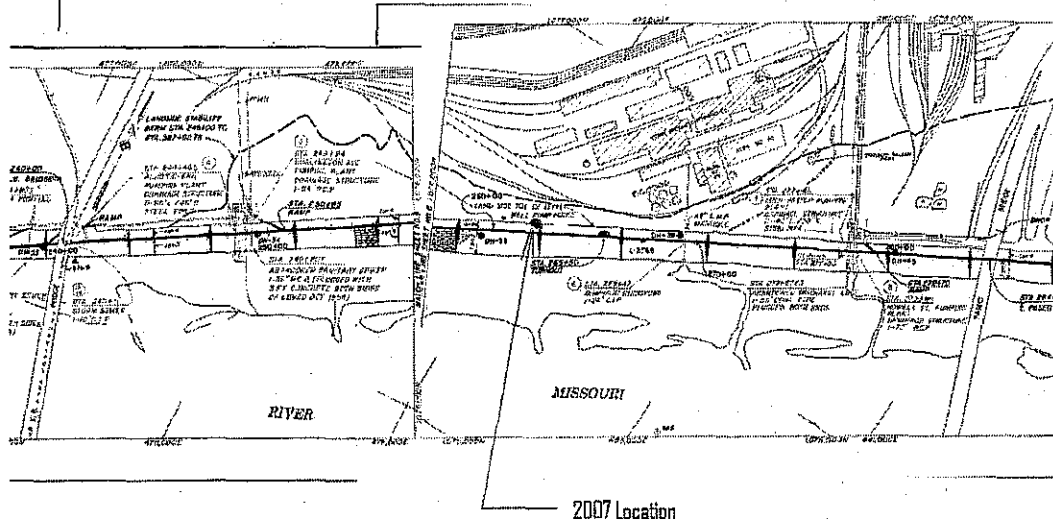


Figure 2 : Plan of Levee Reach
Sinkhole Near Station 260+00
Near river Mile 365.13

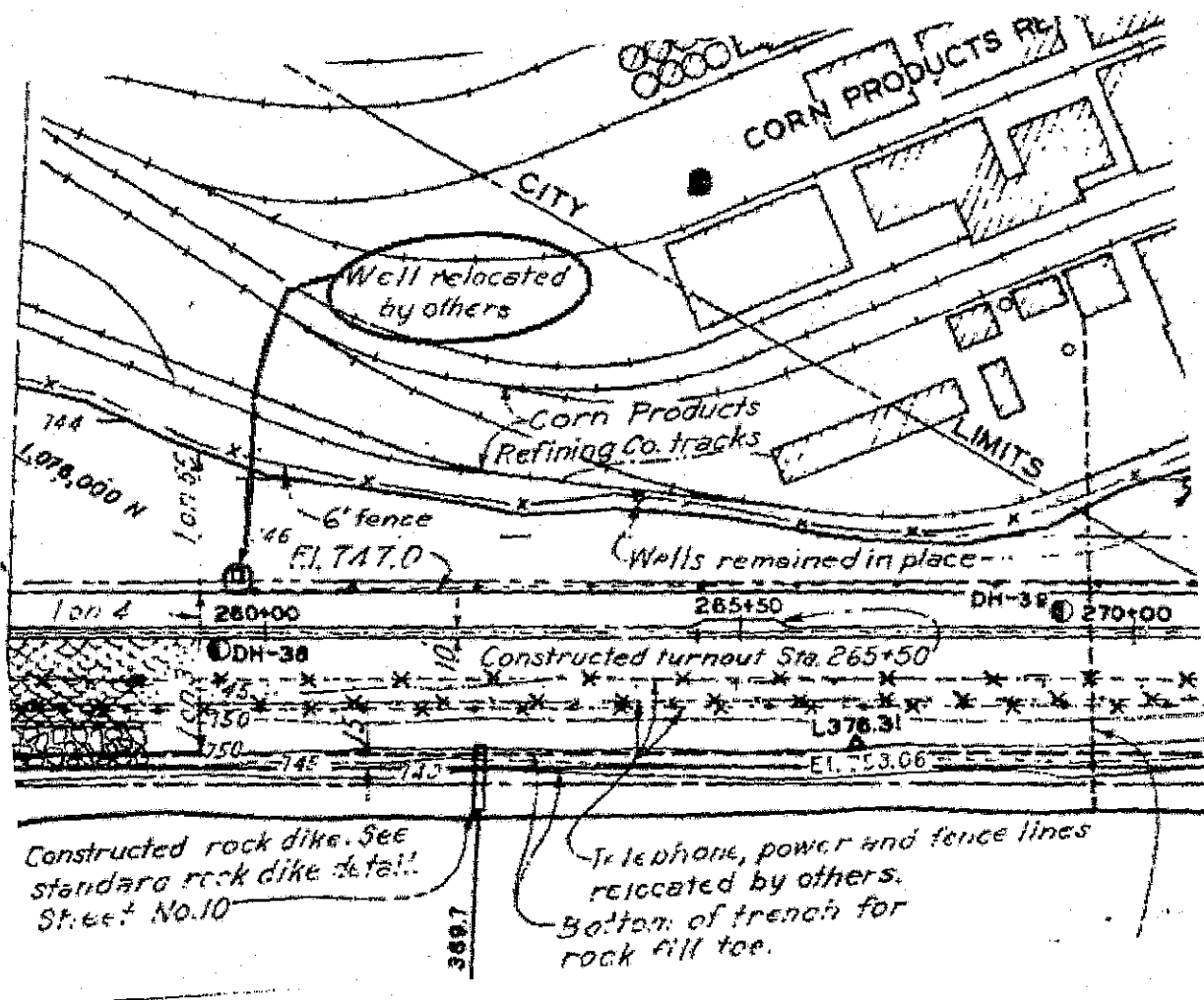


Figure 3 : As Built Plan of Levee Reach
Sinkhole Near Station 260+00

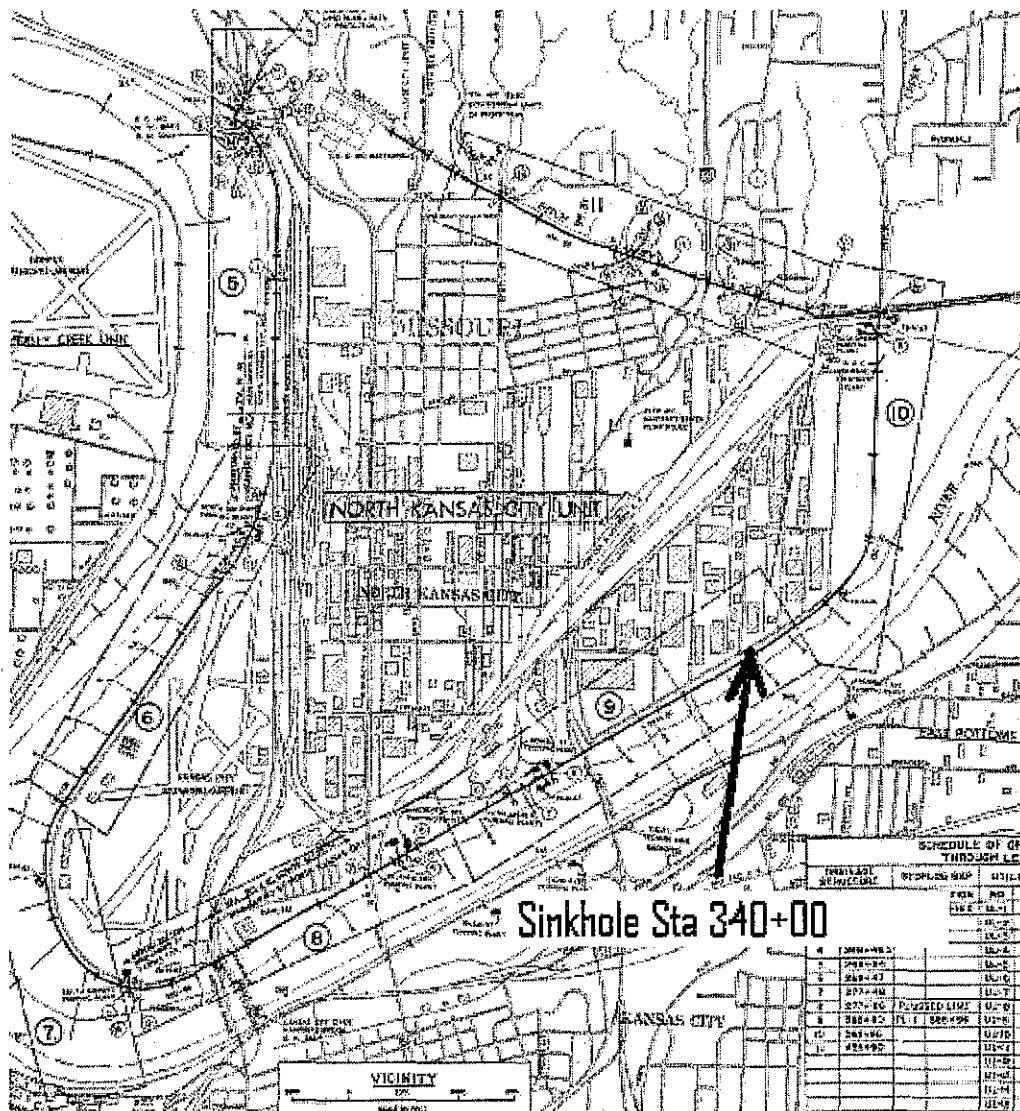


Figure 4 : Plan of Levee Reach
Sinkhole Near Station 340+00

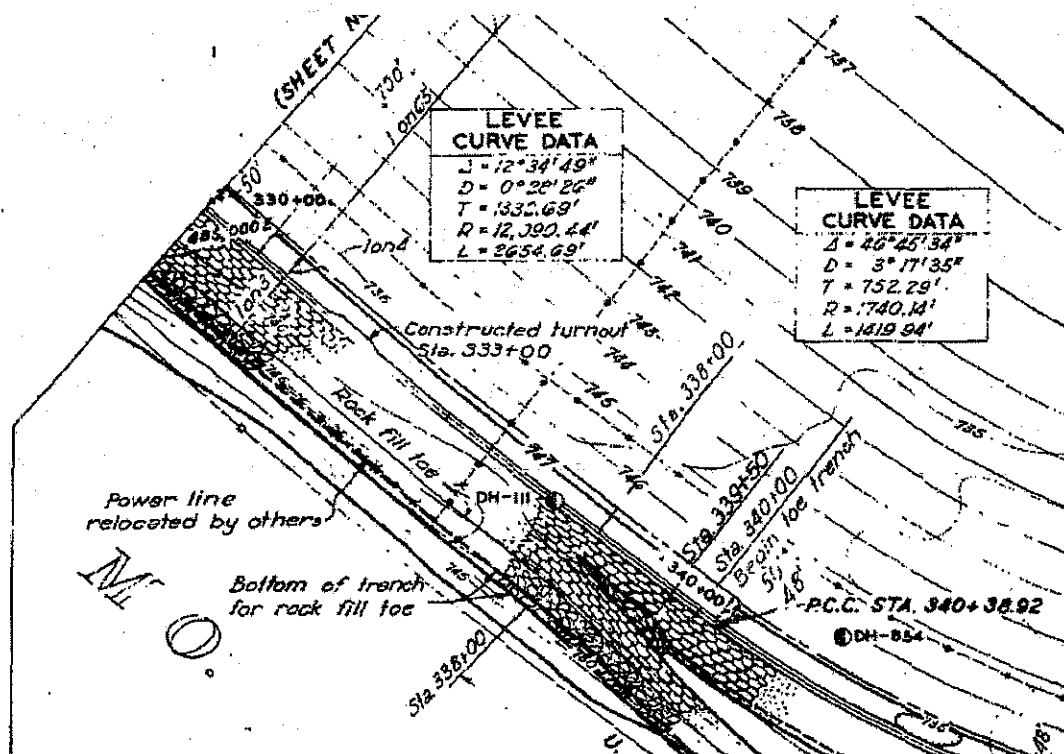
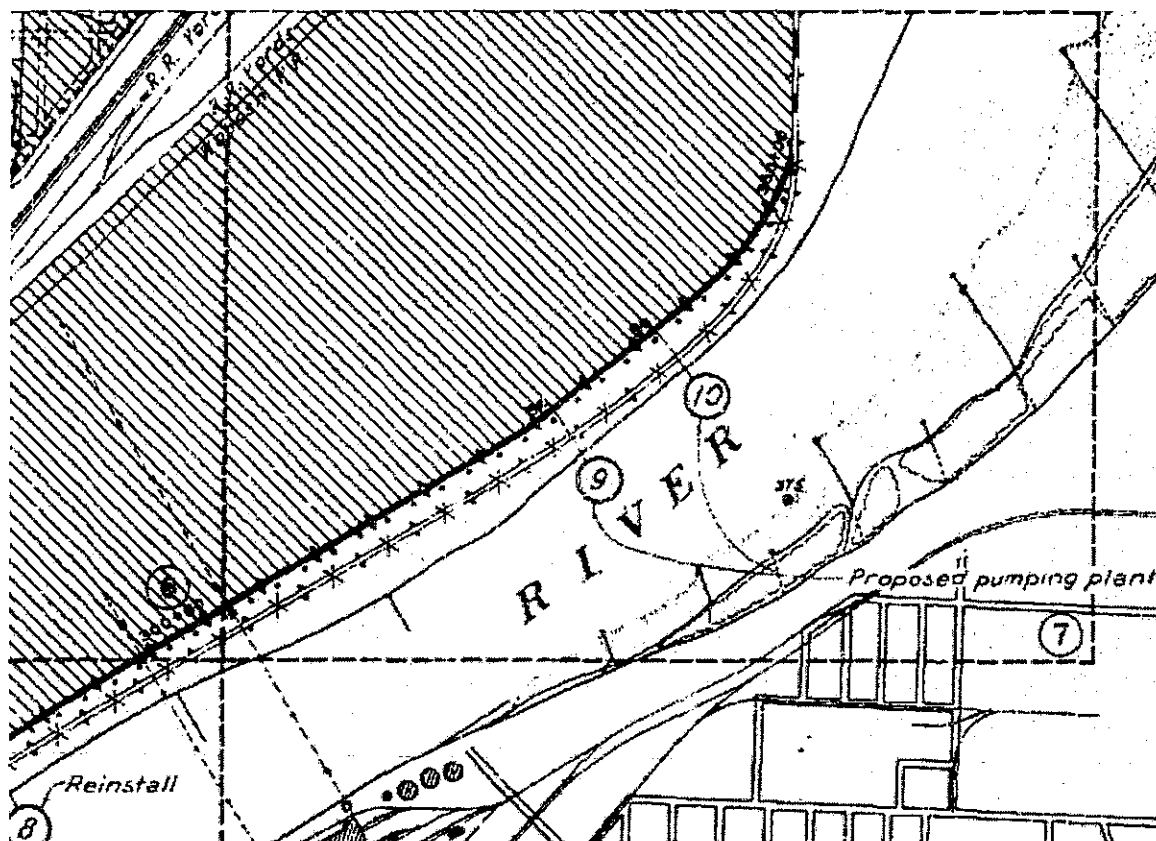


Figure 5 :As Built Drawing Showing
Power Line Relocation Near Station 340+00



LEGEND

Existing levee	—•—•—
Existing levee to be removed	—•—•—
Existing levee to be raised	—•—•—
Proposed levee	—•—•—
Proposed creek channel	—•—•—
Existing creek channel to be filled	—•—•—
Existing floodwall	—•—•—
Slope protection	—•—•—
Stop log gap	—•—•—
Sand bag gap	—•—•—
Miles above mouth of Missouri River (1941)	—•—•—
Limit of general plan sheet and number	②
Drainage outlet	⑦
Existing pumping plants	□
Proposed pumping plants:	
Storm runoff and sanitary sewage	—•—•—
Seepage	—•—•—
Seepage, storm runoff and sanitary sewage	—•—•—

Figure 6 :Definite Project Report Showing
1950 Drainage Outlets Near Station 340+00

APPENDIX II – NEPA REVIEW

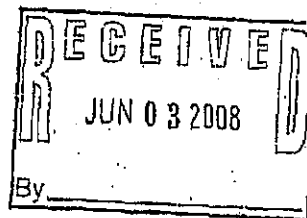
Clean Water Act, Sec 402, NPDES Permit

**North Kansas City Levee Unit Lower Section
Levee Rehabilitation Project
May 2008**



DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
700 FEDERAL BUILDING
KANSAS CITY, MISSOURI 64106-2896

REPLY TO
ATTENTION OF: May 28, 2008
Planning, Programs and Project Management Division
Planning Branch



Charlie Scott
US Fish and Wildlife Service
101 Park DeVille Drive, Suite A
Columbia, Missouri 65203

In accordance with provisions of the National Environmental Policy Act of 1969 (NEPA), enclosed for your review and comment is the Environmental Assessment (EA) and Draft Finding of No Significant Impacts (FONSI) for the North Kansas City Lower Section Levee Rehabilitation Project.

The Kansas City District - U.S. Army Corps of Engineers, in cooperation with the project sponsor, North Kansas City Levee District, propose to construct the North Kansas City Lower Section Levee Rehabilitation Project under the authority of Public Law 84-99, of the Flood Control Act of 1944. Under this authority, the Corps of Engineers can provide assistance to public agencies in responding to flood emergencies such as the rehabilitation of flood control works damaged or destroyed by floods.

The project area is located in Clay County, Missouri along the left descending bank of the Missouri River, North Kansas City, Missouri between river miles 363.5 to 366. The proposed project would involve repair and investigation of sinkholes along the levee that occurred during the May 2007 flood event.

Written comments on the EA and Draft FONSI should be mailed to Ms. Lekesha Reynolds, Environmental Resources Specialist, Corps of Engineers, Kansas City District, PM-PR, 601 E. 12th Street, Kansas City, Missouri 64106-2896, no later than 30 days from the date of this letter.

Sincerely,

David R. Hibbs
Acting Chief, Environmental Resources Section

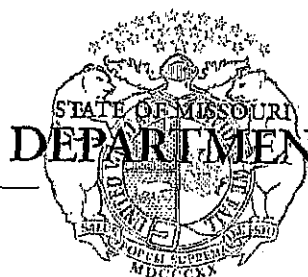
Encls.

"The U.S. Fish and Wildlife Service has reviewed the subject proposal and accompanying information and determined that the activity as described is not likely to adversely affect federally listed species or designated critical habitat. Consequently, this concludes section 7 consultation. Please contact the Missouri Department of Conservation (573/522-4115) for state listed species of concern"

Field Supervisor

4/14/08
Date

U.S. Army Corps of Engineers, KC District
MO-R100043, Various County



Matt Blunt, Governor • Doyle Childers, Director

DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov

NOV 30 2007

U.S. Army Corps of Engineers, KC District
700 Federal Building, 601 E. 12th Street
Kansas City, MO 64106

Dear Permittee:

Pursuant to the Federal Water Pollution Control Act, under the authority granted to the State of Missouri and in compliance with the Missouri Clean Water Law, we have issued and are enclosing a General State Operating Permit for U.S. Army Corps of Engineers, KC District.

Please review the requirements of your permit. Monitoring reports that may be required by this permit must be submitted on a periodic basis. Copies of the necessary report forms, if required, are enclosed and should be mailed to the regional office listed below. Please contact that office for additional forms.

This General Permit is both your federal discharge permit and your new state operating permit and replaces all previous state operating permits and letters of approval for the discharges described within. In all future correspondence regarding this permit, please refer to your general permit number as shown on page one of your permit.

If you were affected by this decision, you may appeal to have the matter heard by the administrative hearing commission. To appeal, you must file a petition with the administrative hearing commission within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the administrative hearing commission.

If you have any questions concerning this permit, please do not hesitate to contact the Water Protection Program at PO Box 176, Jefferson City, MO 65102 (573) 751-1300.

Sincerely,

WATER PROTECTION PROGRAM

NPDES Permit and Engineering Section

Enclosure

RECEIVED
REGULATORY BRANCH
07 DEC -5 PM 2:30

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



**MISSOURI STATE OPERATING PERMIT
WATER POLLUTION CONTROL PROGRAM**

General Operating Permit

In compliance with the Missouri Clean Water Law, (chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.: MO-R100043

Owner: U.S. Army Corps of Engineers, KC District
Address: 700 Federal Building, 601 E. 12th Street
Kansas City, MO 64106

Continuing Authority: Same
Same

Facility Name: U.S. Army Corps of Engineers, KC District
Facility Address: 700 Federal Building, 601 E. 12th Street
Kansas City, MO 64106

Legal Description: See Page 2, Various County

Receiving Stream: See Page 2
First Classified Stream: See Page 2

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein.

FACILITY DESCRIPTION All Outfalls, SIC 1629

Construction or land disturbance activity (e.g., clearing, grubbing, excavating, grading, and other activity that results in the destruction of the root zone) that are performed by or under contract to a city, county, or other governmental jurisdiction that has a storm water control program for land disturbance activities that has been approved by the Missouri Department of Natural Resources.

This permit authorizes only wastewater, including storm waters, discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System, it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law

May 31, 2007

Effective date

November 30, 2007

Issue date

A handwritten signature in cursive script, reading "Doyle Childers".

Doyle Childers, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

May 30, 2012

Expiration date

MO 780-1481 (7-94)

A handwritten signature in cursive script, reading "Edward Galbraith".

Edward Galbraith
Director of Staff, Clean Water Commission

Page 2

Permit Number MO-R100043

This permit accompanies the applicant's General Permit 41 (GP0-41) for the repair of levees due to damages from flooding.

Repair activities may take place anywhere along the Missouri and Grand Rivers and tributaries thereof. Location would be in any county along these waterways from Rulo Nebraska to Saint Louis Missouri.

Detailed receiving stream information is available upon request.